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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,857	07/15/2003	Brian G. Payton	SVL920020047US1	9134

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INTERNATIONAL BUSINESS MACHINES CORP  
IP LAW  
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SAN JOSE, CA 95141

EXAMINER
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COLAN, GIOVANNA B

ART UNIT	PAPER NUMBER
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2162

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/620,857

Applicant(s)

PAYTON ET AL.

Examiner

Giovanna Colan

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 07/15/2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This action is issued in response to applicant filed application on 07/15/03.
2. Claims 1 – 51 are pending.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 – 3, 17 – 20, 34 – 37, and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Banning et al. (Banning hereinafter) (US Patent No. 5,421,008).

Regarding Claims 1, 18, and 35, Banning discloses an article of manufacture comprising a computer carrier readable by a computer and embodying one or more instructions executable by the computer, the computer program providing a query assist tool for assisting a user in creating and/or editing a query statement (Col. 5, lines 6 – 11, Banning), the query assist tool having a user interface for building queries and a query model definition to populate a query model instance with elements of the created query statement (Col. 5, lines 16 – 18, Banning), the user interface comprising:

a) program instructions for visually displaying a search condition of a query statement in a first display area of the user interface (Fig. 2, item 53, Col. 7, lines 58 – 65, Banning); and

b) program instructions for visually selecting two or more predicates of the displayed search condition for grouping (Fig. 2 and 14, item 51 and 574/573, Col. 8, and 30, lines 6 – 12 and 7 - 11, Banning<sup>1</sup>).

Regarding Claims 2, 19, and 36, Banning discloses an article of manufacture, wherein the program instructions for selecting further comprises program instructions for highlighting the two or more predicates (Fig. 2, item 51, DEPT and MANAGER, Col. 8, lines 10 – 12, Banning).

Regarding Claims 3, 20, and 37, Banning discloses an article of manufacture, further comprising program instructions for visually indicating the grouping in the first display area in response to selection of the two or more predicates (Col. 30, lines 12 – 13, Banning).

Regarding Claim 17, 34, and 51, Banning discloses an article of manufacture, further comprising program instructions for receiving a query statement from an application for populating the interface (Col. 4 and 5, lines 57 – 64 and 6 – 11; respectively, Banning).

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<sup>1</sup> Predicates are considered to be elements, such as, DEPT, SALARY, YEAR, JOB, DEPT, and

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 4, 21, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banning et al. (Banning hereinafter) (US Patent No. 5,421,008), in view of Murray et al (NPL: "Kaleidoquery: A Visual Query Language for Object Databases", ACM Press 1998).

Regarding Claims 4, 21, and 38, Banning discloses all the limitation as disclosed above including grouping query predicates based on users selection. However, Banning does not explicitly disclose a grouping method including indentation, adjacent positioning, or delineation by a symbol. On the other hand, Murray discloses a method including means for indicating grouping comprising one or more of the group consisting of: indenting the grouped predicates relative to other predicates of the search condition (Page 251 and 253, para.46 and 61, lines 4 – 10 and 4 – 5; respectively, Murray); positioning the grouped predicates adjacent to each other (Page 253, para. 61, line 5, Murray); and delineating the group with parenthesis or an equivalent symbol (Page 251 and 253, para. 46 and 61, lines 8 – 10 and 6 – 7; respectively, Murray). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Murray, including the teachings of indentation, adjacent positioning, and group delineation with symbols, to the system and method of Banning to provide a highly organized and structured method to display queries. In addition, one of ordinary skill in the art at the time the invention was made would be motivated to do so, in order to provide novice query language users with a clear and understandable view of complex queries, for example, nested ones.

8. Claims 9 – 14, 26 – 31, and 43 – 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banning et al. (Banning hereinafter) (US Patent No. 5,421,008) in view of Goldberg et al. (Goldberg hereinafter) (US Patent Application Pub. No. 2005/0004911 A1).

Regarding Claims 9, 26, and 43, Banning discloses all the limitations as disclosed above including grouping query predicates based on users selection and a method for selecting grouped predicates (Col. 29, lines 56 – 59, Banning<sup>2</sup>). However, Banning is silent with respect to using the selecting method for grouped predicates for ungrouping. On the other hand, Goldberg discloses a graphical condition builder for facilitating database queries including ungrouping grouped predicates (Fig. 8, item 804, Page 9, [0092], lines 4 – 8, Goldberg). It would have been obvious to one of ordinary skills in the art at the time the invention was made to add the teachings of Goldberg, including ungrouping grouped predicates, to the system and method of Banning to provide a way to reverse or undo operations performed by users, such as grouping. Skilled artisan would have been motivated to do so to give users advanced capabilities, such as, fixing incorrect grouping of predicates.

Regarding Claims 10, 27, and 44, the Banning in view of Goldberg combination (“Banning/Goldberg” hereinafter) discloses an article of manufacture, further comprising program instructions for removing the indications of grouping from the first display area in response to the step of selecting grouped predicates (Fig. 12, items 532 and 536, Col. 29, lines 56 – 64, Banning; Fig. 8, items 804 and 802, lines 4 – 8, Goldberg).

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<sup>2</sup> By clicking on the AND node, user is selecting the grouped predicates: YEAR> 25 and SALARY>60000.

Regarding Claims 11, 28, and 45, Banning/Goldberg discloses all the limitations as disclosed above including a selecting grouped predicates for ungrouping. In addition Banning/Goldberg discloses a system and method for confirming the delete operation ungrouping. It would have been obvious to one of ordinary skills in the art at the time the invention was made to modify Banning/Goldberg teachings related to confirmation of selection of the delete operation to be used to Banning/Goldberg's ungrouping procedure. In addition, one of ordinary skills in the art at the time the invention was made would have been motivated to do so, to give users the capacity of validate and corroborate the selection of two or more grouped predicates for ungrouping.

Regarding Claims 12, 29, and 46, Banning/Goldberg discloses all the limitations as disclosed above and furthermore discloses an article of manufacture, further comprising program instructions for removing the indications of the grouping from the first display area in response to selection confirmation (Fig. 12, items 532 and 536, Col. 29, lines 56 – 64, Banning; Col. 29, lines 62 – 64, Banning<sup>3</sup>; Fig. 8, items 804 and 802, Page 8, [0092], lines 4 – 8, Goldberg).

Regarding Claims 13, 30, and 47, Banning/Goldberg discloses all the limitations as disclosed above and furthermore discloses an article of manufacture, wherein the program instructions for confirming further comprise program instructions for one or more of the group consisting of: a selectable button displayed in a second display area,



a mouse click, a keystroke, and the equivalent of any of the foregoing (Fig. 12, item 536, Col. 29, lines 59 – 64, Banning).

Regarding Claims 14, 31, and 48, Banning/Goldberg discloses all the limitations as disclosed above and furthermore discloses an article of manufacture, further comprising program instructions for updating a model instance with the selected ungrouping upon confirmation (Col. 29, lines 62 – 64, Banning<sup>4</sup>; Fig. 8, items 804 and 802, Page 8, [0092], lines 4 – 8, Goldberg).

9. Claims 5 – 8, 22 – 25, and 39 - 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banning et al (Banning hereinafter) (US Patent No. 5,421,008).

Regarding Claim 5, 22, and 39, Banning discloses all the limitations as disclosed above including a selecting predicates for grouping. In addition, Banning discloses a system and method for confirming the delete operation handled by a user. However, in an alternative embodiment, Banning discloses a confirmation of operation (Fig. 12, item 536, Col. 1, lines 59 – 62, Banning). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Banning to include a confirmation of selection of the delete operation to be used to Banning's grouping

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<sup>3</sup> Banning discloses how the delete is completed when the user clicks ok. Because of the reasons explained in claim 5, the action of deleting after the user clicks on the confirmation window would correspond to indicating grouping after the selection confirmation.

procedure. In addition, one of ordinary skill in the art at the time the invention was made would have been motivated to do so, in order to give users the capacity of validate and corroborate the selection of two or more grouped predicates for grouping.

Regarding Claims 6, 23, and 40, Banning discloses an article of manufacture, wherein the program instructions for indicating grouping are responsive to selection confirmation (Col. 29, lines 62 – 64, Banning<sup>5</sup>).

Regarding Claims 7, 24, and 41, Banning discloses an article of manufacture, wherein the program instructions for confirming further comprise program instructions for one or more of the group consisting of: selecting a confirmation button displayed in a second display area, entering a mouse click, entering a keystroke, and the equivalent of any of the foregoing (Fig. 12, item 536, Col. 29, lines 59 – 64, Banning).

Regarding Claims 8, 25, and 42, Banning discloses an article of manufacture, further comprising program instructions for causing a model instance to be updated with the selected grouping upon confirmation (Col. 29, lines 62 – 64, Banning<sup>6</sup>).

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<sup>4</sup> Banning discloses that after the user performs the confirmation, the update is performed in the system (Col 29, lines 62 – 64).

<sup>5</sup> Banning discloses how the delete is completed when the user clicks ok. Because of the reasons explained in claim 5, the action of deleting after the user clicks on the confirmation window would correspond to indicating grouping after the selection confirmation.

<sup>6</sup> Banning discloses that after the user performs the confirmation, the update is performed in the system (Col 29, lines 62 – 64). In addition, Banning discloses that after the user selects the grouping of the predicates, the update of the selection is performed (Fig. 14, items 574 and 576).

10. Claims 15 – 16, 32 – 33, 49 - 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banning et al (Banning hereinafter) (US Patent No. 5,421,008) in view of Murray et al. (NPL: "Kaleidoquery: A Visual Query Language for Object Databases", ACM Press 1998).

Regarding Claim 15 – 16, 32 – 33, and 49 - 50, Banning discloses all the limitations disclosed above including displaying query predicates in a first display area (Fig. 2, Col. 2, lines 54 – 57, Banning<sup>7</sup>). However, Banning does not explicitly disclose that the method displays each search predicate in a different line of the first display area (Claims 15, 32, and 49), nor displaying each operator in a separate line of the first display area (Claims 16, 33, and 50). On the other hand, Murray discloses a system and method for displaying predicate queries including displaying operators and predicates in different lines of a display area (Page 251, para. 46, lines 1 – 10, Murray). It would have been obvious to one of ordinary skills in the art at the time the invention was made to display search predicates and operators in separate lines of the display area in order to provide users with better visualization of the predicates and operators of the queries.

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<sup>7</sup> Items 56, 53, and 51, Fig. 2 are located in same (first) display area.

***Prior Art Made of Record***

1. Banning et al. (US Patent No. 5,421,008) discloses a system for interactive graphical construction of a data base query and storing of the query object links as an object.
2. Murray et al (NPL: "Kaleidoquery: A Visual Query Language for Object Databases", ACM Press 1998, New York, NY, USA).
3. Goldberg et al. (US Patent Application Pub. No. 2005/0004911 A1) discloses a graphical condition builder for facilitating database queries.
4. Banning et al. (US Patent No. 5, 721, 900) discloses a method and apparatus for graphically displaying query relationships.

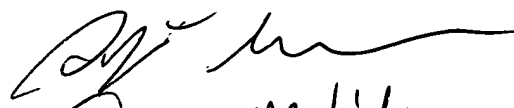
***Points of Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna Colan whose telephone number is (571) 272-2752. The examiner can normally be reached on 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Giovanna Colan  
Examiner  
Art Unit 2162  
January 5, 2006

  
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TC 2100